

REMARKS

The Office Action mailed October 5, 2004 has been reviewed and carefully considered. Claims 1-11 remain pending in this case, of which Claim 1 is the independent claim. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Applicants amend the Specification herein to correct minor typographical errors. No new matter has been added by these amendments.

Claims 1-11 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Bighouse et al. U.S. Patent No. 6,424,409 (hereinafter "Bighouse") in view of Hepburn et al. U.S. Patent No. 6,025,906 (hereinafter "Hepburn"). Applicants respectfully traverse this rejection.

With respect to independent Claim 1, Applicants have amended Claim 1 to more particularly point out and distinctly claim the present invention. In particular, Claim 1 now recites, in part, "a scattering monitor housing provided on a path drawing and UV curable coating the optical fiber... a reflecting plate having a hollow C shape surrounding ... a light condenser located outside the reflecting plate for converging the light reflected from the reflecting plate. Support for this amendment may be found at least in FIG. 2 and in the Specification at Page 3, lines 1-4, Page 5, lines 6-8 and 16-21 and FIG. 4.

The present invention, as represented by amended Claim 1, is directed toward a system for monitoring scattering phenomenon "resulting from accidental scratching, a microstructure defect of the optical fiber pre-form, **unstable coating pressure**, etc." (Specification, Page 3, lines 2-3) To achieve this, as may be seen in FIG.

2, the present invention is arranged “on a path drawing and UV curable coating the optical fiber”, as recited in amended Claim 1. The present invention clearly provides for the monitoring system to detect flaws introduced by numerous sources, including the coating applicator.

Conversely, the system of Bighouse locates its flaw detector “directly after the draw furnace 11” or “after the diameter checker 13 or the cooling tube 15”. (Bighouse, Col. 3, lines 49-56) As may be seen in FIG. 1 of Bighouse, the primary coater 17 and secondary coater 21 are located *after* the draw furnace, diameter checker, and cooling tube. Therefore, the flaw detector of Bighouse is not “provided on a path drawing and UV curable coating the optical fiber”, as recited in amended Claim 1, and cannot detect flaws resulting from unstable coating pressure, a defect in the prior art the present invention seeks to overcome as discussed in the Background of the Invention section of the current Application.

Moreover, Bighouse teaches away from a modification required to achieve the present invention. Applicants, in independent Claim 1, recite, *inter alia*, “a scattering monitor housing provided on a path drawing and UV curable coating the optical fiber”. Bighouse, at Col. 3, lines 49-58, describes the advantage of locating the flaw detector after the draw furnace “as at this point in the process substantially all surface abrasions have been eliminated by the high heat of the draw furnace”. Bighouse clearly discloses the reference invention is designed to overcome imperfections which “include holes in the fiber, inclusions or particles within the fiber, particles on the surface of the fiber, and surface abrasions.” (Bighouse, Col. 1, lines 19-22) As discussed in the Background of the Invention and Summary of the Present Invention sections of Bighouse, the reference

invention does not seek to identify flaws introduced by the coating section of the drawing system.

Further, the reflecting plate has a hollow C cylinder shape and the light condenser in the present invention is located outside the reflecting light, as recited in now amended claim 1. As shown in FIGs. 3 and 4, the scattered light is converged into the light detector via the light condenser located outside the reflecting plate having the C shape hollow cylinder. Accordingly, the scattered light is converged into the light detector using the light condenser located outside reflecting plate in the shape of C, so that more effective light condensation can be performed. In contrast, Bighouse shows a parabolic horn shape, and if a light condenser located between the optical detector 104 and the detection system 100, the light incident on the optical detector can be limited.

Applicants respectfully submit the Examiner must consider Bighouse **as a whole**, including portions that would lead away from the invention. See MPEP § 2141.02.

Accordingly, Applicants respectfully submit independent Claim 1, as presently amended, discloses a system patentably different from the combination of Bighouse and Hepburn and that Bighouse further teaches away from the present invention. A person of ordinary skill in the art would not have combined Bighouse with Hepburn as the Examiner has suggested because Bighouse specifically and explicitly describes a system which is not on a path drawing and UV curable coating the optical fiber and the Hepburn reference similarly fails to teach or disclose this aspect of the present invention. Further, the location of light condenser and the shape of reflecting plate are different. Therefore, one of ordinary skill in the art would not be lead to

combine these references without knowledge of the present invention. Applicants respectfully request the Examiner reconsider and withdraw this rejection.

A review of the art of record has failed to reveal anything that, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as reference against the independent claim herein. This claim is therefore believed patentable over the art of record.


Dependent Claims 2-11 are dependent from independent Claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

Therefore Applicant respectfully requests that the Examiner withdraw the above-stated rejections of the claims.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

Date: December 22, 2004

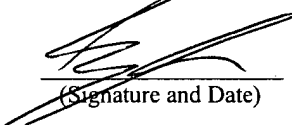

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